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1 level of consciousness would be probably the most	11:01:40	1 the release of some as yet unidentified chemical	11:03:57
2 important thing to monitor?	11:01:43	2 from blood that irritates the vessel wall and	11:04:02
3 A. Yes.	11:01:44	3 causes them to constrict.	11:04:07
4 Q. And blood pressure. What else	11:01:44	4 And the bad part of constriction of the	11:04:09
5 would you be monitoring, or within the standard of	11:01:46	5 blood vessels is that may mean that they may not	11:04:14
6 care of a patient who has been diagnosed with a	11:01:47	6 deliver enough blood to the brain, or perfuse the	11:04:17
7 subarachnoid hemorrhage?	11:01:51	7 brain as we call it.	11:04:20
8 A. Well, you would -- if you are	11:01:51	8 Q. That would lead to some pretty dire	11:04:22
9 monitoring blood pressure, you are usually	11:01:53	9 consequences potentially?	11:04:25
10 monitoring pulse, you are monitoring respirations,	11:01:55	10 A. Yes.	11:04:26
11 you might be monitoring oxygen saturation in the	11:02:00	11 Q. So you were talking about -- we	11:04:27
12 blood and so forth.	11:02:07	12 were talking about medications that you might give	11:04:30
13 Q. Let me ask you about that. How	11:02:08	13 a patient who has a subarachnoid hemorrhage, and	11:04:32
14 would you monitor respirations?	11:02:10	14 you mentioned the calcium channel blockers.	11:04:33
15 A. Well, you can hook a patient up to	11:02:11	15 And is that something that -- was that	11:04:36
16 a monitor that literally, you know, counts the	11:02:16	16 your opinion -- is it your opinion that that is	11:04:39
17 excursions of your chest, or you can simply just	11:02:23	17 something that should be given to a patient or	11:04:41
18 go by there periodically as a nurse and count	11:02:25	18 could be given to a patient to --	11:04:43
19 them, you know, breathing 12 times a minute or 20	11:02:29	19 A. Well, it's --	11:04:45
20 times a minute or what have you.	11:02:33	20 Q. -- help prevent vasospasm?	11:04:46
21 Q. Why is it important -- is it	11:02:34	21 A. -- from the literature, and I did	11:04:48
22 important to monitor respirations in a patient who	11:02:36	22 use it when I was caring for such patients. But I	11:04:53
23 has been diagnosed with a subarachnoid hemorrhage?	11:02:39	23 think that the literature is not overwhelmingly	11:04:57
24 A. Well, it's less important in an	11:02:41	24 conclusive that it prevents vasospasm. I think it	11:05:03
25 awake, alert patient than in someone who is	11:02:42	25 suggests that the incidence is somewhat less on	11:05:09
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1 sleepy, sleepy or drowsy or obtunded or comatose,	11:02:45	1 those patients that take Nimodipine.	11:05:11
2 It's very important to monitor then. But in an	11:02:51	2 Q. Okay. But you used it in your	11:05:15
3 awake patient, whether they are, you know, if they	11:02:53	3 practice; is that correct?	11:05:19
4 are anxious or tense, as I said, they are more	11:02:55	4 A. Yes.	11:05:19
5 likely to have their heart rate up, their blood	11:02:57	5 Q. Did you use it over the course of,	11:05:19
6 pressure up, their breathing is more rapid and so	11:02:59	6 you know, the time -- I don't know when this --	11:05:25
7 forth, and that is not necessarily an ominous sign	11:03:03	7 the calcium channel blockers became available,	11:05:28
8 in those cases.	11:03:07	8 but --	11:05:31
9 Q. Would there be any sort of	11:03:08	9 A. Yeah. I don't either, but it	11:05:31
10 medications that you would -- that a health care	11:03:10	10 probably was 10 to 15 years ago that it -- not at	11:05:32
11 provider would be thinking about giving a patient	11:03:13	11 the time I trained and began practice, somewhere	11:05:39
12 who has been diagnosed with a subarachnoid	11:03:15	12 in the middle or near the end, in fact.	11:05:42
13 hemorrhage?	11:03:16	13 Q. Was this a medication where you	11:05:44
14 A. Mm-hmm. Well, there are those who	11:03:16	14 used it for a while and you thought, you know, I	11:05:46
15 believe that a calcium channel blocker, such as	11:03:22	15 just don't think this is doing anything, I'm not	11:05:48
16 Nimodipine, is appropriate in a setting of	11:03:27	16 going to use it anymore, or was it something you	11:05:49
17 subarachnoid hemorrhage. It is supposed to	11:03:32	17 used throughout your practice?	11:05:50
18 decrease the incidence of vasospasm, which is one	11:03:33	18 A. You don't see any immediate	11:05:51
19 of the complications of subarachnoid hemorrhage.	11:03:37	19 effects. As I said, the literature suggests that	11:05:53
20 Q. I am going stop you there for a	11:03:39	20 the incidence of vasospasm is less or that the	11:05:57
21 second so you can define vasospasm, and then I	11:03:40	21 degree of vasospasm that the patient subsequently	11:06:01
22 will go back to the calcium channel blocker.	11:03:43	22 gets might be less, so it's, I think, iffy kind of	11:06:05
23 What is a vasospasm?	11:03:45	23 literature, but most patients can tolerate it. I	11:06:11
24 A. Yes. It's a constriction of the	11:03:46	24 think that some patients can't tolerate the	11:06:16
25 blood vessels in the brain, thought to be due to	11:03:50	25 medication if their pulse rate is too slow or the	11:06:20
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1 blood pressure is too low, and this might 2 aggravate both of those things. And so you can't 3 give it to every patient.	11:06:23 11:06:25 11:06:28 11:06:30 11:06:32 11:06:34 11:06:36 11:06:43 11:06:48 11:06:52 11:06:56 11:06:57 11:07:00 11:07:04 11:07:10 11:07:15 11:07:16 11:07:18 11:07:20 11:07:24 11:07:28 11:07:30 11:07:31 11:07:33	1 observation. So you can't give a lot of pain 2 medicine or really strong pain medicine, 3 especially if it ends up sedating the patient to 4 the point where it interferes with your 5 observations.	11:08:54 11:08:59 11:09:01 11:09:04 11:09:06 11:09:07 11:09:09 11:09:11 11:09:14 11:09:17 11:09:18 11:09:22 11:09:25 11:09:28 11:09:30 11:09:34 11:09:36 11:09:39 11:09:42 11:09:46 11:09:46 11:09:50 11:09:55 11:10:02 11:10:08
4 Q. Right. Okay. What other 5 medications would you think about giving to a 6 patient who has got a subarachnoid hemorrhage?	11:06:30 11:06:32 11:06:34 11:06:36 11:06:43 11:06:48 11:06:52 11:06:56 11:06:57 11:07:00 11:07:04 11:07:10 11:07:15 11:07:16 11:07:18 11:07:20 11:07:24 11:07:28 11:07:30 11:07:31 11:07:33	6 Q. Is the issue of sedating the 7 patient, is it just a matter of observing the 8 patient or are there concerns with how that might 9 affect their respirations, or are there other 10 concerns?	11:09:07 11:09:09 11:09:11 11:09:14 11:09:17 11:09:18 11:09:22 11:09:25 11:09:28 11:09:30 11:09:34 11:09:36 11:09:39 11:09:42 11:09:46 11:09:46 11:09:50 11:09:55 11:10:02 11:10:08
7 A. Well, there was a time when they 8 were giving, I think it was Aminocaproic acid, to 9 try and prevent the lysis of the blood clot that 10 was presumably sealing off the aneurysm from the 11 first bleed.	11:06:36 11:06:43 11:06:48 11:06:52 11:06:56 11:06:57 11:07:00 11:07:04 11:07:10 11:07:15 11:07:16 11:07:18 11:07:20 11:07:24 11:07:28 11:07:30 11:07:31 11:07:33	12 And, again, the literature suggested 13 that the incidence of rebleeding when given this 14 drug was less, that the downside was that they had 15 other complications. So to my knowledge, it's not 16 widely used anymore.	11:09:22 11:09:25 11:09:28 11:09:30 11:09:34 11:09:36 11:09:39 11:09:42 11:09:46 11:09:46 11:09:50 11:09:55 11:10:02 11:10:08
17 Q. Is that something that has not been 18 widely used for a couple of years or --	11:06:34 11:06:36 11:06:38 11:06:40 11:06:42 11:06:44 11:06:46 11:06:48 11:06:50 11:06:52 11:06:54 11:06:56 11:06:58 11:07:00 11:07:02 11:07:04 11:07:06 11:07:08 11:07:10 11:07:12 11:07:14 11:07:16 11:07:18 11:07:20 11:07:22 11:07:24 11:07:26 11:07:28 11:07:30 11:07:32 11:07:34 11:07:36 11:07:38 11:07:40 11:07:42 11:07:44 11:07:46 11:07:48 11:07:50 11:07:52 11:07:54 11:07:56 11:07:58 11:08:00 11:08:02 11:08:04 11:08:06 11:08:08 11:08:10 11:08:12 11:08:14 11:08:16 11:08:18 11:08:20 11:08:22 11:08:24 11:08:26 11:08:28 11:08:30 11:08:32 11:08:34 11:08:36 11:08:38 11:08:40 11:08:42 11:08:44 11:08:46 11:08:48 11:08:50 11:08:52 11:08:54 11:08:56 11:08:58 11:08:60 11:08:62 11:08:64 11:08:66 11:08:68 11:08:70 11:08:72 11:08:74 11:08:76 11:08:78 11:08:80 11:08:82 11:08:84 11:08:86 11:08:88 11:08:90 11:08:92 11:08:94 11:08:96 11:08:98 11:09:00 11:09:02 11:09:04 11:09:06 11:09:08 11:09:10 11:09:12 11:09:14 11:09:16 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